IBM

3340

IBM 3340
Disk Storage
Facility

Product Description

The 3340 Disk Storage Facility is a direct access storage device providing fast access, medium capacity, and low cost data storage. Incorporating the latest technological concepts, the 3340 is designed for attachment to System/370 native adapter or 3830 Model 2 Control Unit.

The 3340 subsystem is composed of up to four 3340 Disk Storage Modules for a maximum of eight disk drives.

Three 3340 models are available:

Model A2—Dual Drive—With controller logic
Model B2—Dual Drive
Model B1—Single Drive

The controller in the 3340 Model A2 provides the interface between the system adapter or control unit and the 3340 disk drives. Therefore, the 3340 Model A2 must be the first unit of the subsystem.

General Characteristics

Access Time (average)—25 ms
Data Rate—885 kilobytes/sec
Disk Rotation—3000 r p m
Recording Density—5500 bits/inch

Design Features

3348 Data Module (DM)—The modular design places heads, disks, carriage and spindle within a sealed cartridge. Automatic loading of the data module establishes the electro-mechanical connections to the 3340 Disk Drive. The carriage is operated by a Voice Coil Motor (VCM). Controlling the VCM circuits are prerecorded servo tracks. A unique feature of the 3348 Data Module is a CE track on each data surface which eliminates the need for a CE Data Module.

3348 Data Modules are available in two models and can be interchanged on the three 3340 Models.

Data Module Specifications:

Model	Data Capacity
35	34.94 magabytes
70	69.89 megabytes

Error Correction Coding—ECC hardware in the controller, detects and supplies correction information for read errors of up to 3 contiguous bits within a single record.

Logic is MST-E.

Closed Loop Air System—The head/disk environment is maintained in a closed loop air flow system which provides better contamination control.

Read Only Feature—The Read Only Feature offers data protection in that a mechanical plug must be inserted in the Data Module before a write operation can be performed.

3340 Programming Support

Programming support for the 3340 is provided in DOS/VS beginning with Release 28.

Optional Features

Rotational Position Sensing (RPS) —RPS enables the drive to seek to a specific angular track position. The drive interface is disconnected during most of the rotational search time, increasing interface availability to other drives in the subsystem.

FE Career Path

Depending on system attachment, this is an FE Career Path "Data Systems" or "General Systems" product.

Service Features

CE Panel—The 3340 Model A2 incorporates a CE panel for executing in-line micro-diagnostics, and displaying device status bytes.

On-Line Tests (OLT's)—On-line maintenance programs that run under control of the processor, concurrent with customer operations.

Maintenance Library Manuals (MLM's)—Contain Error Code Dictionaries, Installation Instructions, and MAP's. MAP's, as the prime CE tool, have been enhanced by including circuit descriptions, second level diagrams, and scope wave form pictures. Since all documentation necessary for trouble analysis is included, less time is required for problem resolution.

Micro-Diagnostics (MICRO's)— Reside in control storage with the control program for the native attachment, or control unit. They are initiated from the CE panel, and operate any 3340 of the subsystem varied off-line.

Preventive Maintenance—The 3340 Disk Drive incorporates technological advances which eliminate the need for scheduled PM.

Expanded Sense Data—System logging of detailed sense information associated with an error establishes the map entry point.